

Claim 7 (original) The apparatus of claim 1 wherein the backing layer being removed is accumulates with a motorized spool incorporated in the head member.

Claim 8 (original) The apparatus of claim 1 wherein the cutter means severs the predetermined layer of unbacked resin impregnated tape in a direction substantially perpendicular to the tape feed direction.

Claim 9 (original) The apparatus of claim 7 wherein the cutter means severs the predetermined length of unbacked resin impregnated tape in a bias direction with respect to the tape feed direction.

Claim 10 (original) The apparatus of claim 1 wherein the cutter means employs a knife edge.

Claim 11 (original) The apparatus of claim 10 wherein the cutter means further includes a moving blade.

Claim 12 (original) The apparatus of claim 11 wherein the cutter means employs a rotating disc blade.

Claim 13 (original) The apparatus of claim 1 wherein the associated electrical control means includes a program controller.

Claim 14 (presently amended) The apparatus of claim 13 ~~wherein~~ wherein the program controller comprises a software programmed computer.

Claim 15 (presently amended) An automated cut and restart method to form a composite laminated structural shape having ~~at least one~~ multiple deposited surface ~~layer~~ layers of applied tape formed with continuous fibers selected from the group consisting of ceramics, metals, carbon, glass compositions and organic polymers which have been preimpregnated with a resin binder and provided with a releasable backing layer which comprises:

(a) first removing the backing layer from the tape being employed while being continuously transported by a laterally moving tape laying head member from a predetermined start position, said tape laying head member having operating mechanisms physically incorporated therein to perform the entire method,

(b) continuously moving the unbacked tape to the structural shape receiving the applied tape employing pinch roller means incorporated in said tape laying head member,

(c) depositing a predetermined length of the moving unbacked tape on the tape surface of said structural shape with compaction roller means,

(d) severing the predetermined length of deposited tape from a tape supply with and mechanical cutter means physically incorporated in said moving tape laying head member which cooperate operationally with said incorporated pinch roller means to permit forward movement of the tape being continuously fed while preventing backward tape movement during tape separation severance, and

(e) returning the tape laying member to the next start position all with associated electrical control means.

Claim 16 (original) The method of claim 15 wherein the pinch roller means in the tape layer member are motorized to supply the tape being employed.

Claim 17 (original) The method of claim 15 wherein the tape transport further utilizes a motorized spool in the tape laying member to rewind the backing layer being removed.

Claim 18 (currently amended) The method of claim 15 wherein the tape laying member includes a pair of operationally associated spools to continuously supply the tape being employed while continuously accumulating the backing tape layer after removal.